

CLAIMS

1. A circuit arrangement with several inductively operating sensors, said circuit arrangement having switching means, control means for said sensors and evaluating means for signals generated by said sensors as a response to said control means and by means of said switching means said control means and said evaluating means are electrically connected to in each case one said sensor, wherein said switching means comprise a MOSFET with a low drain-source resistance.
2. The circuit arrangement according to claim 1, wherein there is provided precisely one switching means per sensor.
3. The circuit arrangement according to claim 1, wherein said circuit arrangement has resonant circuit capacitors, one said single resonant circuit capacitor being a first resonant circuit capacitor and being connectable by said switching means parallel to in each case all said sensors for producing a measuring frequency.
4. The circuit arrangement according to claim 3, wherein there is a second resonant circuit capacitor parallel to said first resonant circuit capacitor, and switches are provided in order to switch on and off said different resonant circuit capacitors.
5. The circuit arrangement according to claim 4, wherein switching on and off of said resonant circuit capacitors produces a difference of at least 8% between measuring frequencies.
6. The circuit arrangement according to claim 1, wherein said sensors are pot or saucepan detection sensors in a cooking zone.
7. The circuit arrangement according to claim 6, wherein said sensor is a wire loop having a few turns.

8. A method for operating a circuit arrangement with several inductively operating sensors, having switching means, control means for said sensors and evaluating means for signals, which are generated by said sensors as a response to said control means and by means of said switching means said control means and evaluating means are electrically connected to in each case one said sensor, said switching means being a MOSFET with a low drain-source resistance, wherein a gate control voltage at said MOSFET is readjusted so as to give a frequency which is constant with varying temperature.
9. The method according to claim 8, wherein operation takes place with two measuring frequencies.
10. The method according to claim 9, wherein by averaging over numerous measurements a probability is calculated and by means thereof it is established whether or not a saucepan is present.
11. The method according to claim 8, wherein two different capacitors are connected in parallel to one said sensor as resonant circuit capacitors and are operated with different measuring frequencies.